

Abstract

A method is proposed for converting an image in which each pixel takes one of two binary values, into an image in which each pixel can take continuous values. The method is iterative and works in the space domain. For each pixel, a neighborhood of the image is defined containing that pixel and other pixels. In a first iteration, the method obtains a continuous value for each pixel as a weighted sum of the binary values of the pixels in its neighborhood. In further iterations, the method obtains a continuous value for each pixel as a weighted sum of the values of the pixels in its neighborhood at the previous iteration.